

PCBs in Priority Building Materials: Screening Assessment Applicant Package



Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training



Bay Area
Stormwater Management
Agencies Association

August 2018

This document is a deliverable of the Bay Area Stormwater Management Agencies Association (BASMAA) project *Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training*. BASMAA developed guidance, tools, and outreach and training materials to assist with San Francisco Bay Area municipal agencies’ efforts to address the requirements of Provision C.12.f. of the Bay Area Municipal Regional Stormwater Permit (referred to as the MRP). Provision C.12.f of the MRP requires Permittees to manage PCBs–containing building materials during demolition.

We gratefully acknowledge the BASMAA Steering Committee for this project, which provided overall project oversight, including during the development of this and other project deliverables:

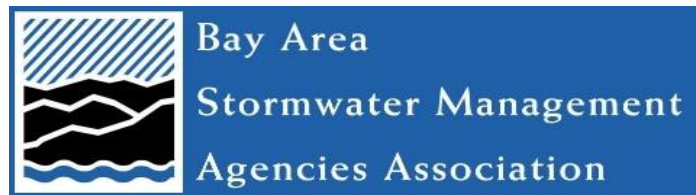
- Reid Bogert, Stormwater Program Specialist, San Mateo Countywide Water Pollution Prevention Program (BASMAA Project Manager)
- Amanda Booth, Environmental Program Analyst, City of San Pablo
- Kevin Cullen, Program Manager, Fairfield-Suisun Urban Runoff Management Program
- Matt Fabry, Program Manager, San Mateo Countywide Water Pollution Prevention Program
- Gary Faria, Supervisor, Inspection Services, Building Inspection Division, Contra Costa County
- Napp Fukuda, Deputy Director - Watershed Protection Division, City of San José
- Ryan Pursley, Chief Building Official, Building Division, City of Concord
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- Melody Tovar, Regulatory Programs Division Manager, City of Sunnyvale

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Stakeholder Group	Representative(s)
Regulatory – stormwater/PCBs	Luisa Valiela and Carmen Santos, U.S. EPA Region 9
Regulatory – stormwater/TMDL	Jan O’Hara, San Francisco Bay Regional Water Quality Control Board
Regulatory – experience with related program (asbestos management)	Ron Carey and Richard Lew, Bay Area Air Quality Management District
Industry – demolition contractors	Avery Brown, Ferma Corporation
Industry – remediation consultants	John Martinelli, Forensic Analytical Consulting John Trenev, Bayview Environmental Services, Inc.
MRP Permittee – large municipality	Patrick Hayes, City of Oakland
MRP Permittee – medium municipality	Kim Springer, San Mateo County Office of Sustainability
MRP Permittee – small municipality	Amanda Booth, City of San Pablo

Prepared for:

BASMAA
P.O. Box 2385
Menlo Park, CA 94026



Prepared by:

EOA, Inc.
Larry Walker Associates
Geosyntec Consultants
Stephanie Hughes
David J. Powers & Associates, Inc.



MEMORANDUM

TO: BASMAA Board of Directors

FROM: BASMAA Project Team: EOA, Inc., Larry Walker Associates, Geosyntec Consultants, Stephanie Hughes, and David J. Powers & Associates, Inc.

DATE: August 13, 2018

SUBJECT: Supplemental Demolition Permit Application Materials - Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training

This memorandum transmits a deliverable for Task 5 (Supplemental Demolition Permit Application Materials) of the Bay Area Stormwater Management Agencies Association (BASMAA) project *Managing PCBs–Containing Building Materials during Demolition: Guidance, Tools, Outreach and Training*. BASMAA developed guidance, tools, and outreach and training materials to assist with San Francisco Bay Area municipal agencies’ efforts to address the requirements of Provision C.12.f. of the Bay Area Municipal Regional Stormwater Permit (SFBRWQCB 2015, referred to as the MRP). The MRP is issued by the San Francisco Bay Regional Water Quality Control Board¹ (Regional Water Board). Provision C.12.f requires Permittees to manage PCBs–containing building materials during demolition.

OBJECTIVES OF THIS TECHNICAL MEMORANDUM

MRP Provision C.12.f.ii (2) requires that by July 1, 2019 Permittees “implement or cause to be implemented the PCBs management protocol for ensuring PCBs are not discharged to MS4s from demolition of applicable structures via vehicle track-out, airborne releases, soil erosion, or stormwater runoff.” This memorandum was developed to assist Permittees to comply with Provision C.12.f.ii (2) by transmitting a *PCBs in Priority Building Materials: Screening Assessment Applicant Package*.

PCBS IN PRIORITY BUILDING MATERIALS SCREENING ASSESSMENT APPLICANT PACKAGE

The attached *PCBs in Priority Building Materials Screening Assessment Applicant Package (Applicant Package)* contains supplemental demolition permit application materials that incorporate the PCBs in building materials control program requirements in the MRP. It includes supplemental demolition permit application materials, including an overview of the process, forms, applicant instructions, and process flow charts. The starting point was the process flowcharts and forms developed for the PCBs in Caulk Project in 2011.²

The *Applicant Package* incorporates the steps outlined in the *Protocol for Evaluating Priority PCBs–Containing Materials before Building Demolition* (BASMAA 2018), which was developed via Task 3 of this BASMAA regional project, and converts those steps into appropriate application questions and submittals. In addition, the *Applicant Package* incorporates gathering tracking and assessment

¹ The MRP was reissued November 19, 2015, with an effective date of January 1, 2016. There are 77 Phase I municipal stormwater Permittees in five Bay Area counties, which are among the over 90 local agencies represented by BASMAA.

² <http://www.sfestuary.org/taking-action-for-clean-water-pcbs-in-caulk-project>

information related to the MRP Provision C.12.f.ii (3) requirement to develop an assessment methodology and data collection program to quantify reductions in PCBs loads to MS4s through the new program for controlling PCBs during demolition. Task 7 of this BASMAA regional project developed a conceptual approach to developing the assessment methodology and data collection program that is coordinated with the *Applicant Package*.

The *Applicant Package* summarizes the typical process that a local agency will need to follow to implement a new program to manage PCBs-containing materials during building demolition. It is anticipated that each jurisdiction's approach to implementing the new program will vary depending upon that agency's current procedures and needs. Potential approaches include using the materials as a stand-alone program, or incorporating questions in the materials into existing demolition permit or building permit applications, Construction and Demolition (C&D) applications and plan development guidance, and/or information management systems such as GreenHalo™. However, the *Applicant Package* was developed as a stand-alone package in order to provide a complete overview of a process.

REFERENCES

California Regional Water Quality Control Board, San Francisco Bay Region (SFBRWQCB) 2015. Municipal Regional Stormwater NPDES Permit, Order R2–2015–0049, NPDES Permit No. CAS612008. November 19, 2015.

BASMAA 2018. Protocol for Evaluating Priority PCBs–Containing Materials before Building Demolition. Prepared for Bay Area Stormwater Management Agencies Association (BASMAA). August 2018.

PCBs in Priority Building Materials: Screening Assessment Applicant Package

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DISCLAIMER

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The material presented in this document is intended solely for the implementation of a municipal regulatory program required by the San Francisco Bay Area Regional Water Quality Control Board Municipal Regional Stormwater Permit for the protection of water quality under the Clean Water Act.

BASMAA prepared the tools and guidance herein to assist MRP Permittees' efforts to address the requirements of Provision C.12.f. of the MRP. The project team received input from a variety of stakeholders during development of the tools and guidance, including regulators (San Francisco Bay Regional Water Quality Control Board, U.S. EPA, and Bay Area Air Quality Management District staff), Bay Area municipal agency staff, and industry representatives.

This document does not address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA); federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; and abatement at sites with PCBs (or other contaminants). The applicant is responsible for knowing and complying with all relevant laws and regulations.

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Process Overview

This document provides a PCBs in Priority Building Materials Screening Assessment process to be conducted by demolition project proponents (applicants). A flow chart illustrating the above processes is provided in **Attachment A**.

Applicants proposing to demolish buildings must conduct the PCBs screening assessment. Through the PCBs screening assessment applicants will:

- 1) Determine whether the building proposed for demolition is likely to have PCBs-containing building materials (see discussion of applicable structure); and
- 2) Determine whether PCBs are present at a concentration equal to or greater than 50 parts per million (ppm) in building materials.

Use the *PCBs Screening Assessment Form (Attachment B)* to summarize and certify the information required by the municipality to issue the demolition permit. The form is divided into four parts:

- **Part 1** provide applicant information and project location.
- **Part 2** complete the questions to identify whether the project involves an applicable structure. If the demolition does not involve an applicable structure, the form may be certified and submitted without completing Part 3.
- **Part 3** complete the questions to provide the concentrations of PCBs in any priority building materials.
- **Part 4** certify the information being submitted.

Note that fluorescent light ballasts, polyurethane foam furniture, and Askarel fluid used in transformers, all of which may contain PCBs, are typically managed during pre-demolition activities under current regulations and programs that require removal of universal waste and outdated transformers. For this process it is assumed that those materials will be evaluated and managed under those existing programs.

This screening process is part of a program for water quality protection and was designed in accordance with requirements in the MRP.¹ It does not address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA); federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; or abatement at sites with PCBs (or other contaminants). **The applicant is responsible for complying with all relevant laws and regulations. See the Notices to Applicants section for additional information.**

Water quality within the San Francisco Bay Region is regulated by the San Francisco Bay Area Regional Water Quality Control Board (Regional Water Board).

In 2015, the Regional Water Board reissued the Municipal Regional Permit (MRP)¹ that regulates discharges of stormwater runoff. The MRP includes provisions for reducing discharges of polychlorinated biphenyls (PCBs) in stormwater runoff and requires municipalities to develop a program to manage priority PCBs-containing building materials during demolition and implement the program by July 1, 2019.

Existing federal and state regulations create the framework for managing PCBs in building materials once those PCBs are identified through this program and for disposing of wastes containing PCBs.

¹ A National Pollutant Discharge Elimination System (NPDES) permit, Order No. R2-2015-0049, issued to municipalities in the counties of Alameda, Contra Costa, San Mateo, and Santa Clara, and the Cities of Fairfield, Suisun City, and Vallejo.

Applicant Instructions for Completing the PCBs Screening Assessment Form

Applicants for demolition permits or other permits that involve the complete demolition of a building must conduct an assessment to screen for PCBs in priority building materials. Use the *PCBs Screening Assessment Form*, to summarize and certify the information needed by the municipality to issue a demolition permit. The form is provided in **Attachment B**. If the project includes the demolition of multiple buildings complete one form for each building to be demolished.

Part 1. Owner and project information

Complete the owner and consultant information and the project location information.

For the Type of Construction select one of the following options:

- **Wood Frame** (Buildings constructed with lumber or timbers, which make up the studs, plates, joists, and rafters.)
- **Masonry Construction** (Buildings constructed with concrete blocks or bricks as the load bearing walls typically with the floors and ceilings constructed with wooden joists.)
- **Steel Frame Construction** (Buildings constructed with steel studs or steel columns and steel joists or trusses to support floors and roofs. Includes light gauge steel construction and high-rise steel construction.)
- **Concrete Frame** (Buildings constructed with reinforced concrete columns, concrete beams, and concrete slabs.)
- **Pre-Engineered** (Buildings constructed with pre-engineered parts bolted together.)

Part 2. Is building subject to the screening requirement based on type, use, and age of the building?

Part 2 documents the determination of whether the proposed demolition will affect an applicable structure. If the demolition does not affect an applicable structure, then the assessment is complete, and the form can be certified.

This determination screens out buildings that are a lower priority with regard PCBs-containing materials and provides an off-ramp from the rest of the screening process.

Key Definitions

Demolition means the wrecking, razing, or tearing down of any building. The definition is intended to be consistent with the demolition activities undertaken by contractors with a C-21 Building Moving/Demolition Contractor's License.

Priority Building Materials are:

1. Caulk;
2. Thermal insulation;
3. Fiberglass insulation;
4. Adhesive mastics; and
5. Rubber window gaskets.

Buildings are structures with a roof and walls standing more or less permanently in one place. Buildings are intended for human habitation or occupancy.

Applicable Structures are defined as buildings constructed or remodeled between January 1, 1950 and December 31, 1980. Wood framed buildings and single-family residential buildings are not applicable structure regardless of the age of the building.

Question 2.a: Is the building to be demolished wood framed and/or single family residential?

- If YES the PCBs Screening Assessment is complete, skip to the certification in Part 4.
- If NO, continue to Question 2.b.

Question 2.b: Was the building to be demolished constructed or remodeled between January 1, 1950 and December 31, 1980?

- If YES continue to Question 2.c.
- If NO, the PCBs Screening Assessment is complete, skip to the certification in Part 4.

Question 2.c: Is the proposed demolition a complete demolition of the building (as defined in key definitions of this document)?

- If YES continue to Part 3.
- If NO, the PCBs Screening Assessment is complete, skip to the certification in Part 4.

Studies have found the highest concentrations of PCBs in building materials in buildings that were built or remodeled from 1950 to 1980.

For this process, the date that the building permit was issued will be used to determine applicability.

Part 3. Report concentrations of PCBs in priority building materials

Part 3 documents the results of the assessment of PCBs concentrations in priority building materials. Part 3 is only required for proposed demolition of an applicable structure, as determined in Part 2. Check the option used.

- **Option 1** Conduct representative sampling and analysis of the priority building materials per the *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition* (August 2018) provided in **Attachment C**.
- **Option 2** Use existing sampling results of the priority building materials. Applicants who have conducted sampling prior to the publication of the protocol may use that data provided it is consistent with the protocol (e.g., analytical methods, sample collection frequency, QA/QC). It is anticipated that prior sampling results will rarely be available and that most Applicants will need to use Option 1.

3.a Option 1 – Conduct representative sampling

Check this box if you conducted representative sampling and analysis of the priority building materials per the *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition* (August 2018) (**Attachment C**).

- Complete the applicable tables for each priority building material.
- Attach the contractor's report² documenting the evaluation results.
- Attach (or include in the contractor's report) the QA/QC checklist (see **Attachment C**, Section 3.2.4).
- Attach copies of the analytical data reports.

² The contractor's report of the findings of the PCBs building material evaluation. See section 3 of Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (Attachment C).

3.a Option 2 – Use existing sampling records

In some cases, a property owner may have conducted sampling of the priority building materials for PCBs. If such data exist, you may use these data to demonstrate the concentration of PCBs in the priority building materials for the PCBs screening. However, if the sampling must be consistent with the *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition*.

- Complete the applicable tables for each priority building material.
- Attach the contractor's report/statement that the results are consistent with the *Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition*.
- Attach copies of the analytical data reports.

Part 3 Tables Summarize concentrations of PCBs in priority building materials

Use these tables to summarize the concentrations of PCBs in the priority building materials.

- Each page of the table is for a different material. Duplicate the pages as needed to report all concentration data.
- A blank page is provided. Applicants have the option of submitting PCBs concentration data on other materials in addition to the priority building materials.

Column 1: required for all priority building material PCBs concentrations

- Use column 1 to report all PCBs concentrations in the priority building materials. Provide short description of the sample location, concentration.

Column 2: only required for PCBs concentrations ≥ 50 ppm

- Use column 2 to estimate the amount of material associated with each sample.

Part 4. Certification

- Complete the certification. The certification must be signed by the property owner or the owner's agent or legal representatives and the consultant who complete the application form.

Notices to Applicants Regarding Federal and State PCBs Regulations

Applicants that determine PCBs exist in priority building materials must follow applicable federal and state laws. This may include reporting to U.S. Environmental Protection Agency (USEPA), the San Francisco Bay Regional Water Quality Control Board, and the California Department of Toxic Substances Control (DTSC). These agencies may require additional sampling and abatement of PCBs.

Depending on the approach for sampling and removing building materials containing PCBs, you may need to notify or seek advance approval from USEPA before building demolition. Even in circumstances where advance notification to or approval from USEPA is not required before the demolition activity, the disposal of PCBs waste is regulated under Toxic Substances Control Act (TSCA).

Additionally, the disposal of PCBs waste is subject to California Code of Regulations (CCR) California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.

Building owners and employers need to consider worker and public safety during work involving hazardous materials and wastes including PCBs.

Federal and State Regulations

Building materials containing PCBs at or above 50 ppm that were manufactured with PCBs (e.g., caulk, joint sealants, paint) fall under the category of PCBs bulk product wastes. See 40 Code of Federal Regulations (CFR) 761.3 for a definition of PCBs bulk product wastes.

Building materials such as concrete, brick, metal contaminated with PCBs are PCBs remediation wastes (e.g., concrete contaminated with PCBs from caulk that contains PCBs). 40 CFR 761.3 defines PCBs remediation wastes.

Disposal of PCBs wastes are subject to TSCA requirements such as manifesting of the waste for transportation and disposal. See 40 CFR 761 and 40 CFR 761, Subpart K.

TSCA-regulated does not equate solely to materials containing PCBs at or above 50 ppm. There are circumstances in which materials containing PCBs below 50 ppm are subject to regulation under TSCA. See 40 CFR 761.61(a)(5)(i)(B)(2)(ii).

Disposal of PCBs wastes are subject to California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.

California hazardous waste regulatory levels for PCBs are 5 ppm based on the Soluble Threshold Limit Concentration test and 50 ppm based on the Total Threshold Limit Concentration test, see CCR, Title 22, Section 66261.24, Table III.

Agency Contacts

Applicants should contact the appropriate agencies and review the relevant guidance and information about PCBs in building materials. Municipal staff are not able to advise you on the requirements of the applicable federal and state laws.

Agency	Contact	Useful Links
US Environmental Protection Agency	Steve Armann (415) 972-3352 armann.steve@epa.gov	https://www.epa.gov/pcbs (EPA PCB website) https://www.epa.gov/pcbs/questions-and-answers-about-polychlorinated-biphenyls-pcbs-building-materials (PCBs in Building Materials Fact Sheet and Q/A Document) https://www.epa.gov/pcbs/pcb-facility-approval-streamlining-toolbox-fast-streamlining-cleanup-approval-process (USEPA PCB Facility Approval Streamlining Toolbox (PCB FAST)) https://www.epa.gov/pcbs/polychlorinated-biphenyls-pcbs-building-materials#Test-Methods (See Information for Contractors Working in Older Buildings that May Contain PCBs)
San Francisco Bay Regional Water Quality Control Board	Jan O'Hara (510) 622-5681 Janet.O'Hara@waterboards.ca.gov Cheryl Prowell (510) 622-2408 Cheryl.Prowell@waterboards.ca.gov	https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/sfbaypcbstdl.shtml https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/sitecleanupprogram.html
Department of Toxic Substances Control	Regulatory Assistance Office 1-800-72TOXIC RAO@dtsc.ca.gov	http://www.dtsc.ca.gov/SiteCleanup/Brownfields/upload/PU_B_SMP_Guide-to-Selecting-a-Consultant.pdf
California Division of Occupational Safety and Health (known as Cal/OSHA)	CalOSHA Consultations Services 1-800-963-9424	https://www.dir.ca.gov/dosh/consultation.html